

DATA STRUCTURES

Doubly Linked List

#Lockdown continues

#Stay At Home

Prince agarwal
(By Prince Agarwal)
[" Hello World "]

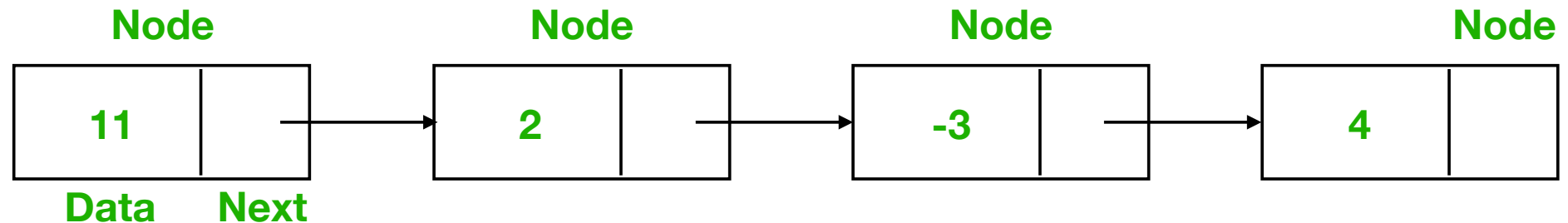
Hello world

DATA STRUCTURES

□ Doubly Linked List

□ Basically, It contains an extra pointer, typically called *previous pointer*

□ Now , why we need this ?



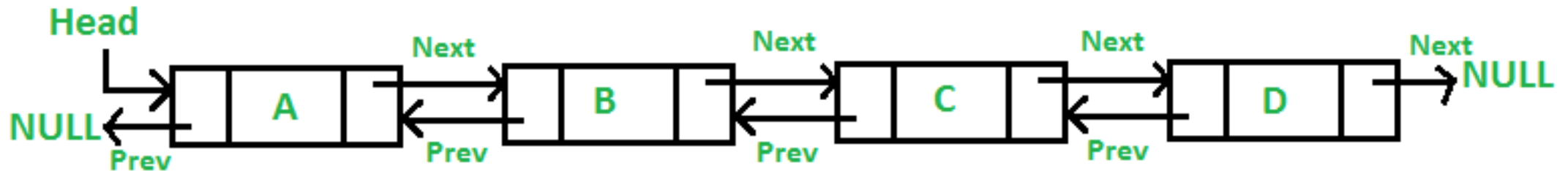
```
/* ----- Linked list Node ----- */  
struct node{  
    int data;  
    node *next;  
};
```

Hello world

DATA STRUCTURES

Doubly Linked List

Then we come up with some solution

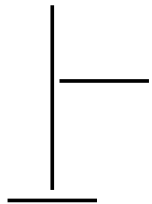


```
/* ----- Doubly Linked list Node ----- */  
struct node{  
    int data;  
    node *next;  
    node *prev;  
};
```

Hello world

DATA STRUCTURES

■ Doubly Linked List



■ Advantages of DLL (Doubly Linked List)

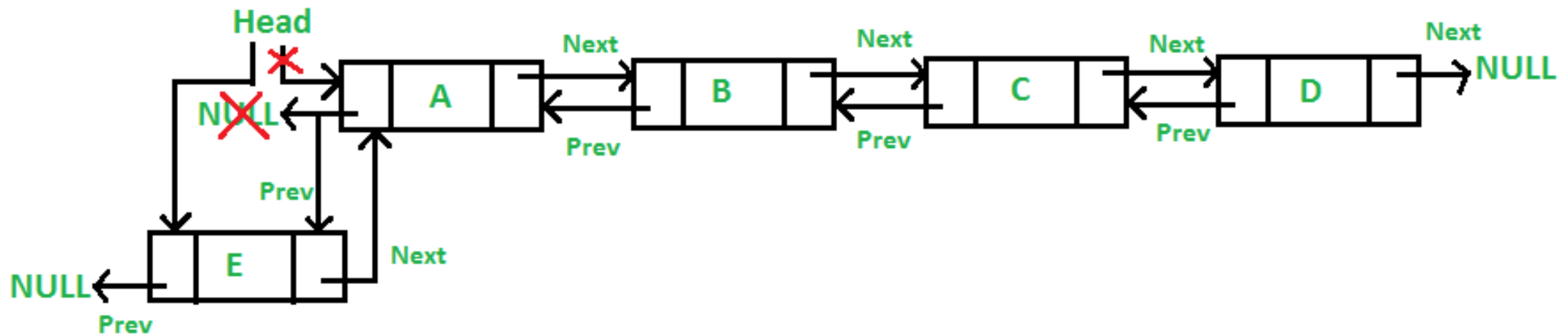
- Node can be easily traversed in both direction
- We can easily insert a node before a given node

■ Disadvantages of DLL (Doubly Linked List)

- We have to maintain a extra pointer
- All operations require an extra pointer previous to be maintained

DATA STRUCTURES

Insertion in Doubly Linked List



Hello world

DATA STRUCTURES



Insertion in Doubly Linked List

****head_ref**

11ZXA59
789864

***head**

97XH89
202032

Node



Prev Data Next

Node



Node

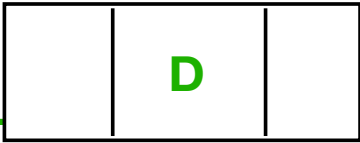


NULL

***newNode**

NEW124
89WA9

Node



NULL

Prev Data Next

Hello world

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*“ If you feel any problem then comments in my video
I will reply as soon as possible “*

<https://www.facebook.com/helloworldofficials>

- Prince Agarwal

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